TRATAMENTO CIRÚRGICO DA DOENÇA DE PEYRONIE

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Ordem da Trindade 5º Piso

Saúde Atlântica – Estádio do Dragão

Ordem da Trindade

Surgical Treatment

Gold standard treatment for patients in chronic phase

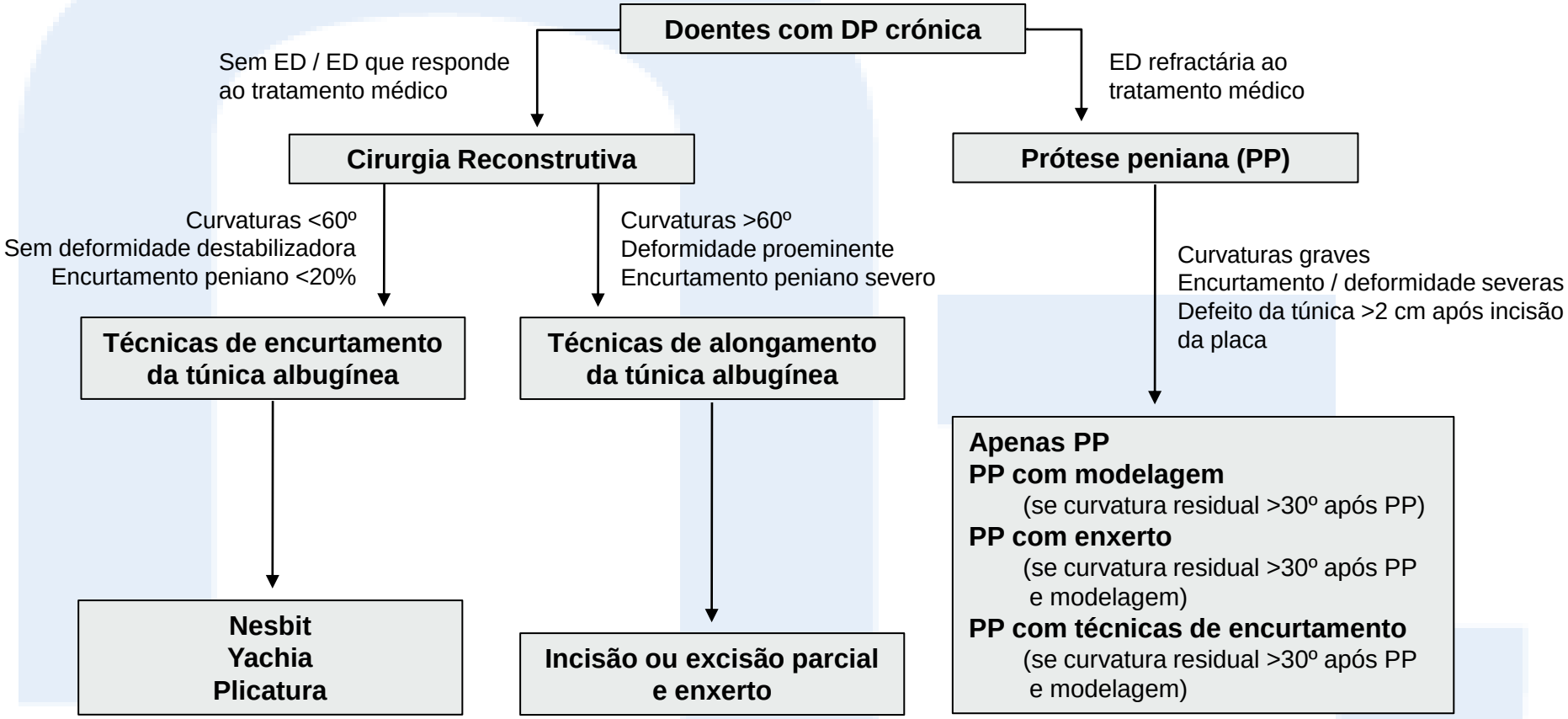
Indications

Stable disease (> 6 mo with no pain and stable deformity)
Inability to engage in coitus
Severe curvature or penile shortening
Extensive plaque calcification
Patient desire for rapid and reliable results

BUT ABSOLUTELY NECESSARY

Detailed preoperative discussion on cause and mechanism of action of PD *and*

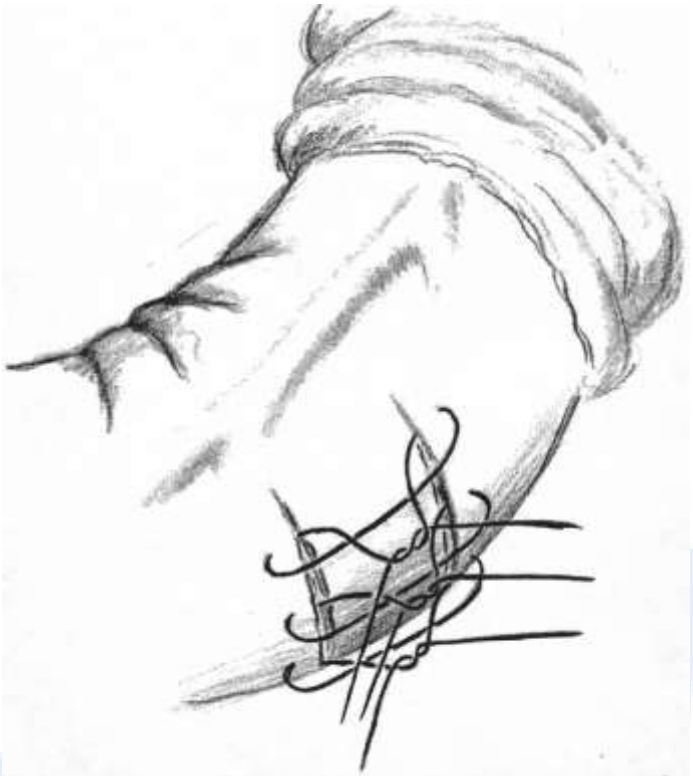
Realistic outcomes of the selected surgical procedure (return of function rather than restoration to the pre-PD !



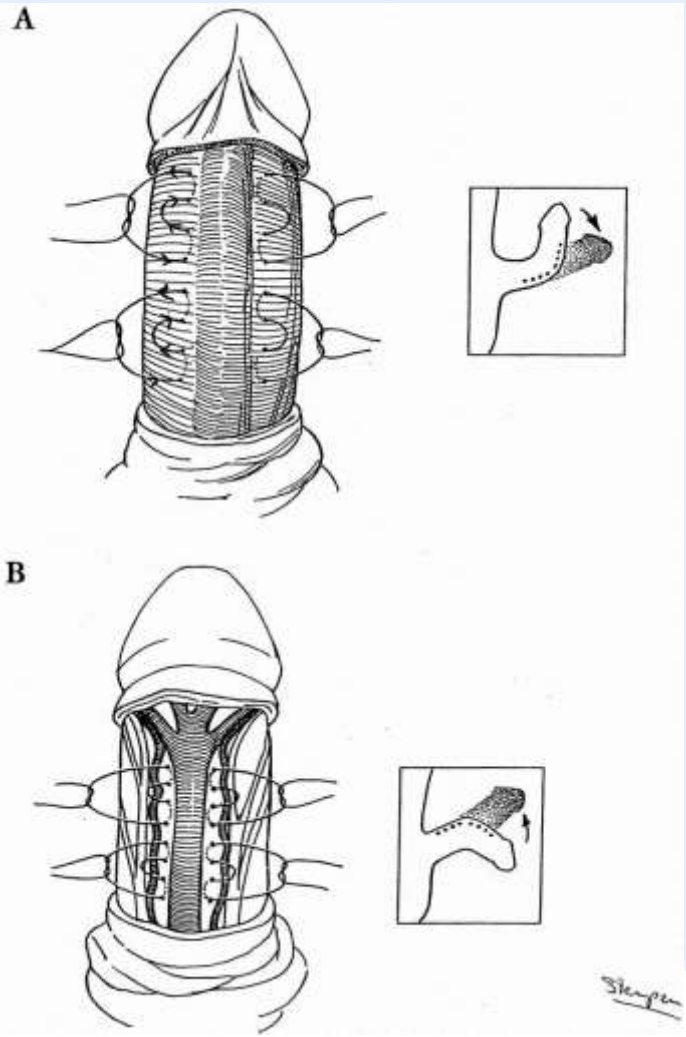
Tomada N, Cruz F
Acta Urológica 2011;28(3):47-51

Corporoplastia de encurtamento

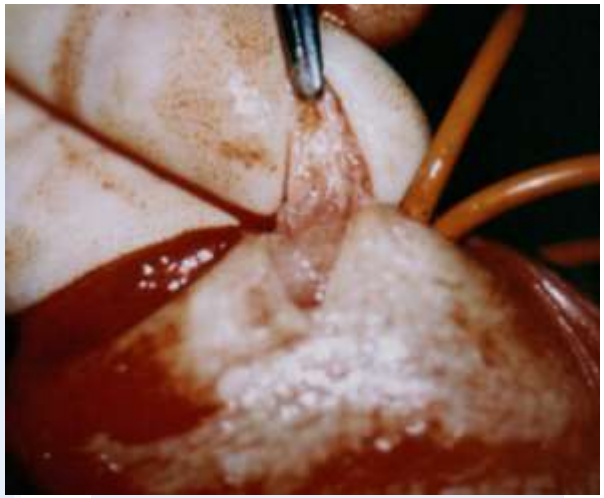
Procedure	Author, date	Patients, *N*	Mean follow-up, months
Tunical shortening procedures			
Nesbit	Syed et al., 2003 [16]	57	84.0
Tunical albuginea plication	Paez et al., 2007 [17]	76	70.5
	Taylor et al., 2008 [18]	61	72.0
Yachia procedure	Daitch et al., 1999 [19]	19	24.1
	Rehman et al., 1997 [20]	26	22.0
Giammusso procedure	Giammusso et al., 2004 [21]	12[a]	20.2
Lemberger procedure	Lemberger et al., 1984 [22]	19	10.0
16- or 24-dot procedure	Gholami et al., 2002 [23]	132[b]	6.0 to 30.0 (range)
Essed-Schröder tunical plication	Van der Horst et al., 2004 [24]	28[c]	30.0
	Frieddrich et al., 2000 [25]	31[d]	22.0
Penoscrotal plication procedure	Dugi et al., 2010 [26]	48[e]	4.0 to 6.0 weeks
Tunical plication combined with plaque thinning with carbide burs	Ding et al., 2010 [27]	18	50.5

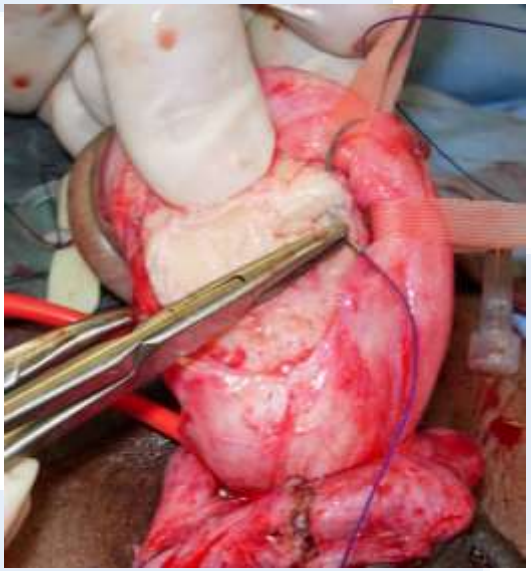


Essed – Schroeder or inverted stitch technique



Tunical plication (16 DOT plication technique)





Nesbit procedure

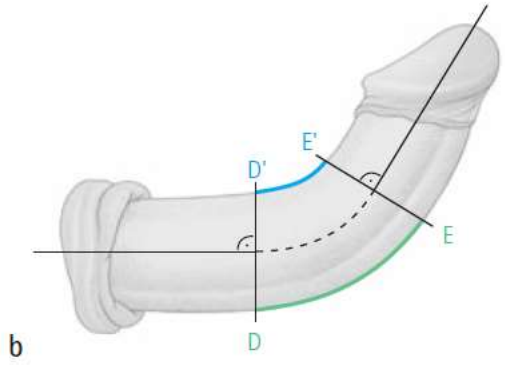
Corporoplastia Yachia – a nossa experiência

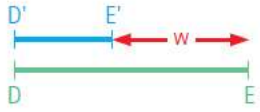
Authors	N	Mean follow-up (months)	Straingtness (%)	ED (%)	Satisfaction (%)	Shortening (%) (cm)	Complicatons (%)
Lopes	117	14	50,9 complete straight 43,7 (<30°) 6,3 (recurrence causing SD)	12,5 (worse)	88,4 excellent 4,5 satisfied 7,1 poor	100 (0,5-5) 2,7 shortening causing SD	1,8 penile hypoesthesia 0,9 phimosis (require subsequent circumcision)
Daitch[12]	19	24,1	92,9 straight 7,1 (<20°)	7,1 (worse)	42,9 very satisfied 35,7 satisfied 7,1 neutral 14,3 dissatisfied	43 (no change) 57 (1,2-7,5)	-
Licht[13]	30	12	93 straight	0	83 satisfied	67 (1-2) 3,3 shortening causing SD	3 penile hypoesthesia
Sulaiman[14]	78	50	4,8 (recurrence)	23,1 (worse)	79,5 satisfied	40 concerned about shortening 7,7 unsatisfactoy intercourse	3,8 penile hypoesthesia 3,8 unhappy with circumcision

Lopes I, Tomada N, Vendeira P. Penile corporoplasty with Yachia's technique for Peyronie's disease: Single center experience with 117 patients. Urol Ann. 2013 Jul;5(3):167-71.

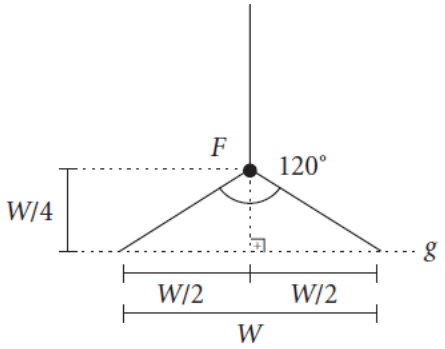
Corporoplastia Yachia – a nossa experiência

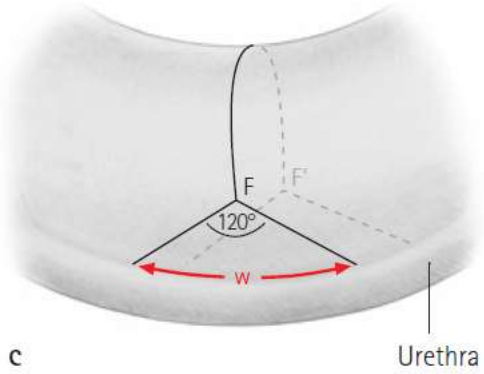
Corporoplastia de alongamento





$w = \overline{DE} - \overline{D'E'}$





Princípios geométricos Paulo Egydio

Corporoplastia de alongamento

Corporoplastia de alongamento

Situações especiais

Várias curvaturas - vários enxertos

Corporoplastia de encurtamento adicional

Grafts used in Peyronie's disease surgery

Autologous grafts
Dermis
Vein grafts
Tunica albuginea
Tunica vaginalis
Temporalis fascia
Buccal mucosa

Ideal graft material ??

Allografts
Cadaveric pericardium
Cadaveric fascia lata
Cadaveric dura matter
Cadaveric dermis

Xenografts
Porcine small intestinal submucosa
Bovine pericardium
Porcine dermis

Synthetic grafts
Gore-Tex
Dacron

Graft type	Type of tissues	Author, date	Patients, N	Mean follow-up, months	Surgical outcomes (%)					
					Straightening	Shortening	Postoperative ED	Sensory change	Pain	Satisfaction
Autologous grafts	Rectus sheath	Craatz et al., 2006 [40]	12	4 to 10 (range)	100.0	NR	0.0	NR	NR	58.3
	Tunica vaginalis	O'Donnell et al., 1992 [41]	25	42.2	88.0	96.0	68.0	16.0	NR	NR
	Dermal graft	Goyal et al., 2008 [42]	11	6 to 24 (range)	81.8	NR	9.1	18.2	0.0	81.8
	Buccal mucosa	Cormio et al., 2009 [43]	15	13.1	100.0	0.0	0.0	0.0	NR	93.3
	Fascia lata graft	Kargi et al., 2004 [44]	12	10	100.0	0.0	0.0	NR	NR	100.0
	Venous patch graft	El-Sakka et al., 1998 [45]	112	18	96.0	170	12.0	10.0	6.2	92.0
Allografts	Pericardium	Chun et al., 2001 [46]	9	6	55.5	NR	11.0	0.0	NR	88.9
	Tutoplast®*human pericardial grafting	Taylor et al., 2008 [18]	81	58	91.0‡	33.0	32.0	31.0	NR	75.0
	Fascia lata Tutoplast® graft	Kalsi et al., 2006 [47]	14	31	79.0	28.6	7.1	7.1	NR	93.0
	Four-layer Stratasis grafts	Kovac et al., 2007 [48]	13	7.8	76.9	46.0	23.0	23.0	NR	84.6
Xenografts	Porcine four-layer SIS	Lee et al., 2008 [49]	13	14 (median)	100.0§	NR	54.0	NR	NR	NR
	Porcine four-layer SIS	Knoll et al., 2007 [50]	162	38	91.0	5.0	21.0	17.0	0.0	NR
	Porcine one-layer SIS	Breyer et al., 2007 [51]	19	15	63.0	63.0	53.0	NR	26.0	Score of 2.7 out of 5.0
	Bovine pericardium graft	Egydio et al., 2002 [52]	33	19.5	87.9	NR	0.0	NR	NR	NR
	TachoSil†	Hortsmann et al., 2011 [28]	43	63.0	41.0	40.0	9.0	7.0 (severe), 16.0 (moderate)	7.0	20.0
Synthetic grafts	Polyethylene terephthalate mesh reinforced silicone sheet patch graft	Licht et al., 1997 [53]	28	22	61.0	30.0	18.0	14.0	NR	30.0

Saphenous vein vs SIS®

Advantages:

Establishing blood supply from the lumen of corpus cavernosum
NO prevents hematoma formation.
Experimentally demonstrated that TA reforms over the vein patch site.
Acceptable long-term outcome.
Extended experience in centers of excellence
No additional cost

Disadvantages:

Morbidity of vein harvesting
Complex suturing
Time consuming
Future bypass surgery ?

Advantages:

No second incision needed
Easy to use
Rapid integration in the tissues
Acceptable medium-term outcome.
Extended experience in centers of excellence

Disadvantages:

Costs
De novo ED – controversial !

Post Grafting ED Predictors

Age > 55
Graft size
Curvature degree
Preoperative EF
- Arterial dysfunction
- Cavernosal dysfunction

Comorbidities (DM)
Operation technique
- H vs Egydio

Outcome of Surgical Treatments

	Tunical shortening procedures		Tunical lengthening procedures
	Nesbit	**Plication**	**Grafts**
Penile shortening	4.7-30.8%	41-90%	0-40%
Penile straightening	79-100%	58-100%	74-100%
Persistent or recurrent curvature	4-26.9%	7.7-10.6%	0-16.7%
Post-operative erectile dysfunction	0-13%	0-22.9%	0-15%
Penile hypoesthesia	2-21%	0-21.4%	0-16.7%
Technical modifications	1	At least 3	Many types of grafts and techniques used

EAU guidelines 2012

Postoperative care

Massage and stretch therapy 2 weeks after the surgery and performed twice a day for 4 weeks

Bedtime PDE-5 inhibitors begin 7-10 days after surgery and maintained for 6 weeks

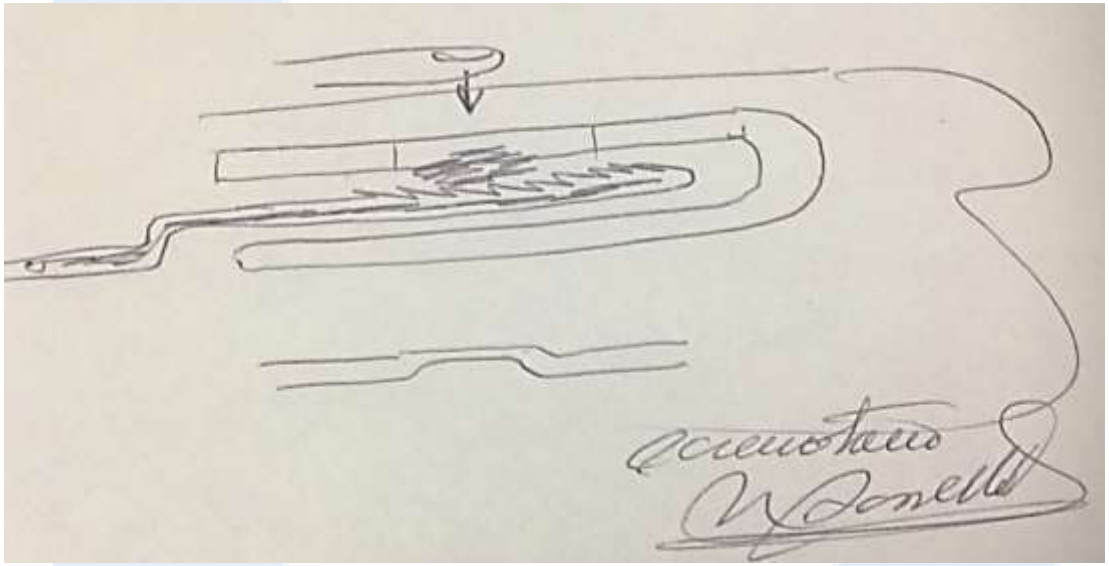
External penile traction therapy is initiated 2-3 weeks after surgery and performed on a daily basis for a minimum of 2-8 hours for 3 months

Patient with PD and ED

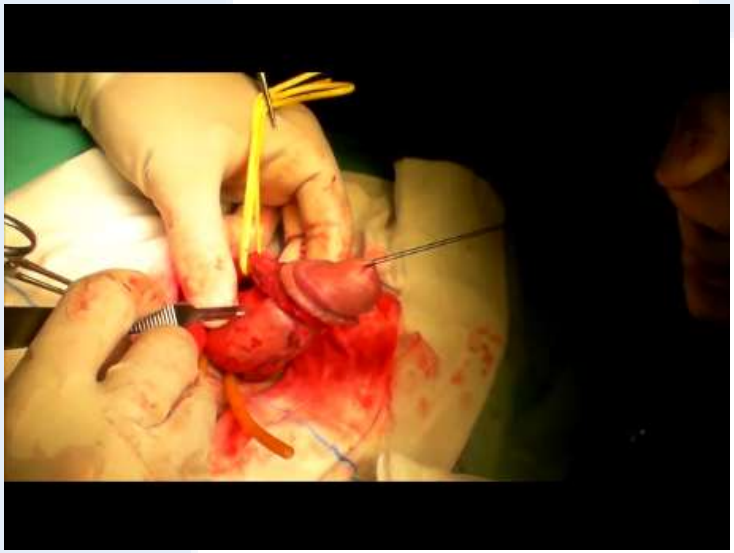
Procedure	Author, date	Patients, *N*	Mean follow-up, months
Penile prosthesis implantation			
Inflatable penile prosthetic implantation	Levine et al., 2010 [32]	90	49.0
	Levine et al., 2000 [33]	46	39.0
Soft, silicon, axially resistant, prosthetic cylinders	Austoni et al., 2005 [34]	80	113.0
Silicon soft dynamic antiextrusion prosthetic implantation	Grasso et al., 2008 [35]	12	72.0
Transcorporeal incision	Shaeer et al., 2010 [36]	16	14.0

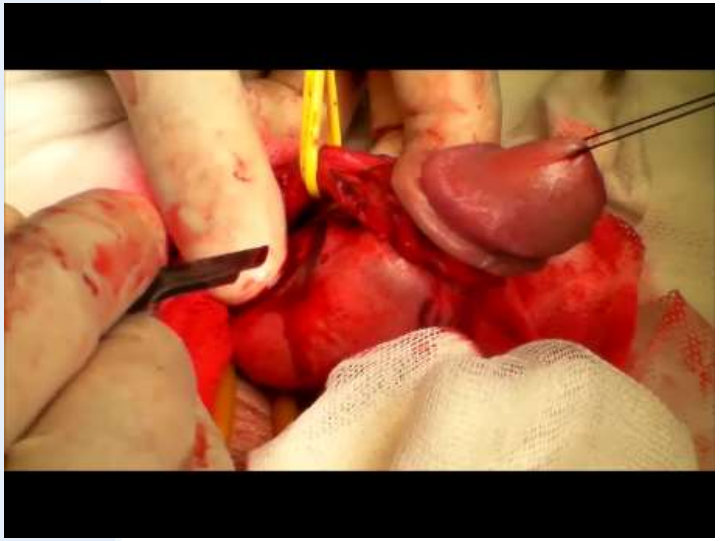
Modelagem – manobra de Wilson

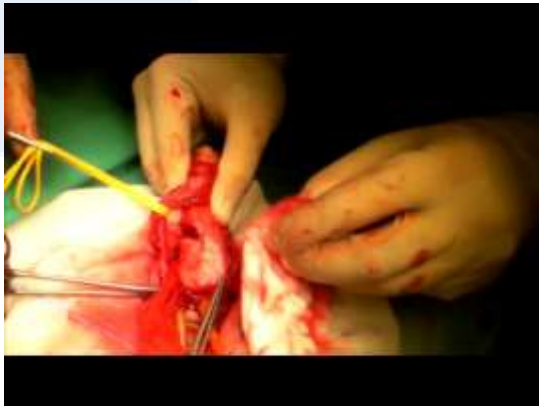
Abordagem transcorporal – Rosseló



Doença de Peyronie e DE







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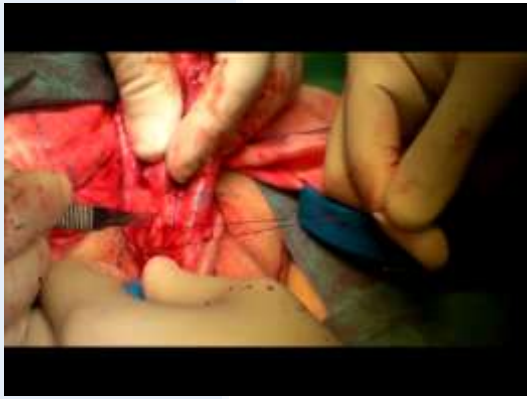

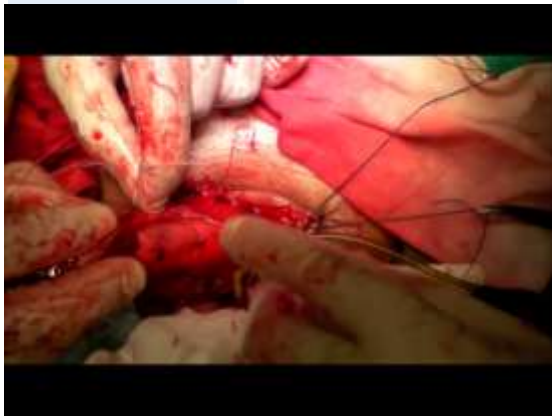

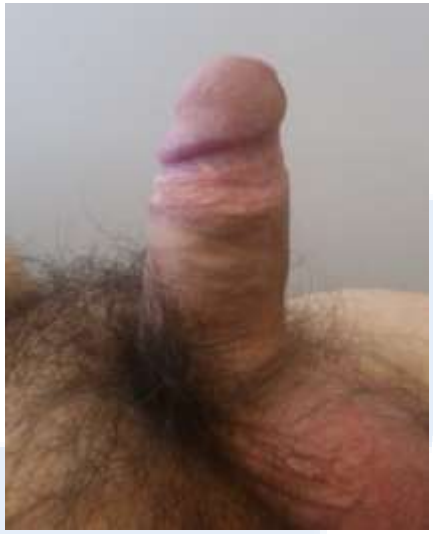

José Paulo Andrade

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